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EXAMINER

SMITH, RICHARD A

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2859

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/811,941	<b>Applicant(s)</b> SHEVELA, MICHAEL	
	<b>Examiner</b> R. Alexander Smith	<b>Art Unit</b> 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-22 and 25-28 is/are allowed.
- 6) ☒ Claim(s) 1-15 and 19 is/are rejected.
- 7) ☒ Claim(s) 16-18, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of

a. claims 4, 5, 9, 18 and 24, and

b. for claim 12 the threaded inserts and threaded nuts as claimed,

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Applicant should note that if shown, then the specification will need to be corrected also since the specification indicates many of the above claimed subject matter as not being shown.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Figure 1 should be designated by a legend such as --Prior Art-- or --Related art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The claim states "The alignment tool of claim 1, wherein said gauge pins are comprised of a material the durability of which is not less than the durability of the material with which said

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gauge pins make contact when in use." which makes the claim indefinite because it is unclear as to how the examiner can possibly gauge the durability of undisclosed materials nor is it clear how the examiner can assume what is the material being contacted by the gauge pins.

### *Claim Objections*

5. Claims 23 and 24 are objected to because of the following informalities:

For each claim 23 and 24: "said means for establishing orthogonality" does not properly refer to its antecedent in claim 20 which addresses a specified angular relationship which is not necessarily orthogonal.

### *Claim Rejections - 35 USC § 102*

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,781,286 to Knestel.

Knestel discloses an alignment tool comprising:

an illumination source (at 2 and 4); an illumination axis (as shown) defined by said illumination source;

a plurality of gauge pins (in a broad sense, chucking elements 19 are gauge pins), each having a respective distal end, said distal ends arranged to define a plane (at said wheel rim edge), wherein said plane has a known orientation to said illumination axis (parallel and perpendicular); and

a body (17-21) to which said illumination source and said plurality of gauge pins are attached.

said illumination source comprises a laser (column 8 line 63),

wherein said illumination source comprises direction adjustment fittings (via servomotor 13 and related components that adjusts the source relative to wheel rotation),

said illumination source comprises operation using a battery housed within said illumination source (column 6 line 30).

The Applicant should note that the preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

8. Claims 1, 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by US 3,337,961 to Holub.

Holub discloses an alignment tool comprising:

an illumination source (20); an illumination axis (as shown) defined by said illumination source;

a plurality of gauge pins (33), each having a respective distal end, said distal ends arranged to define a plane (at said wheel rim edge), wherein said plane has a known orientation to said illumination axis (perpendicular); and

a body (the components between the pins and illumination source) to which said illumination source and said plurality of gauge pins are attached,

wherein said illumination source comprises direction adjustment fittings (figures 8 and 9),

said illumination source comprises attachment to said body by a male screw thread integral to said illumination source (via 66, column 4 lines 9-12).

The Applicant should note that the preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

With respect to the claim 6: it has been held that the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding. In re Hotte, 177 USPQ 326, 328 (CCPA 1973).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holub in view of US 4,106,208 to Hunter.

Holub teaches all that is claimed as discussed in the above rejections of claims 1, 3 and 6 except for wherein said illumination source receives electrical power from at least one supply external to said illumination source.

Hunter discloses an alignment tool and teaches that the illumination sources are provided power by an external power supply (61). Therefore, it would have been obvious to one of



ordinary skill in the art at the time of the invention to modify the tool, taught by Holub, to include an external power supply, as taught by Hunter, in order to make the device work as intended and for long periods of time.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holub.

Holub teaches all that is claimed as discussed in the above rejections of claims 1, 3 and 6 except for said illumination source comprises attachment to said body by at least one female screw thread integral to said illumination source.

With respect to the female screw thread: the use of a female screw thread, as claimed by Applicant, is considered to be equivalent to the male screw thread, as disclosed by Holub, since:

1) neither non-obvious nor unexpected results, i.e., results which are different in kind and not in degree from the results of the prior art, will be obtained if one is used instead of the other, as long as the illumination source is secured, as already taught by Holub, and 2) the female screw thread claimed by Applicant and the male screw thread used by Holub are well known alternate types of fastening screws that will perform the same function, if one is replaced with the other, of attaching the illumination source.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knestel in view of US 5,886,782 to Hedgecock, Jr.

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Knestel teaches all that is claimed as discussed in the above rejections of claims 1-4 except for a compressive sleeve attaching said illumination source to said body by surrounding said illumination source at least in part and applying clamping force to said illumination source.

Hedgecock, Jr. discloses an alignment tool wherein an illumination source (22) is mounted into a compressive sleeve (unmarked) and attached by application of a clamping force (via the screws shown). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tool and the illumination source (in this case 2) , taught by Knestel, to include a compressive sleeve and a clamping force, as suggested by Hedgecock, Jr. in order to allow easier replacement and/or servicing of the laser.

13. Claims 10, 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holub.

Holub teaches all that is claimed as discussed in the above rejections of claims 1, 3 and 6 except for

said gauge pins are comprised of one of tool steel, stainless steel, ceramic, ceramic-coated metal, aluminum alloy, spring metal alloy, unfilled engineered plastic, and filled engineered plastic,

said gauge pins are comprised of a material the durability of which is not less than the durability of the material with which said gauge pins make contact when in use,

said gauge pins attach to said body by one of co-molding, vibroinsertion, differential temperature interference fitting, and press fitting,

said gauge pins are formed integrally with said body.

With respect to said gauge pins are comprised of one of tool steel, stainless steel, ceramic, ceramic-coated metal, aluminum alloy, spring metal alloy, unfilled engineered plastic, and filled engineered plastic and said gauge pins are comprised of a material the durability of which is not less than the durability of the material with which said gauge pins make contact when in use: The use of these materials are only considered to be the use of "optimum" or "preferred" materials that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide to make the pins disclosed by Holub since they are well known types of materials used to make pins and since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention. In re Leshen, 125 USPQ 416.

With respect to said gauge pins attach to said body by one of co-molding, vibroinsertion, differential temperature interference fitting, and press fitting: Holub teaches that the arms (31 and 32) carry the pins (33) which are serrated pins. The limitations as claimed are "product by process" limitations in which each are directed to a step required to mate the serrated pin to the arm. Therefore, this step does not provide enough patentable weight since it has been held that 1) the determination of patentability in "product by process" claims is based on the product itself, even though such claims are limited and defined by the process, and 2) the product in a "product

by process" claim is unpatentable if it is the same as, or obvious from a product of the prior art, even if the prior art product was made by a different process. In re Thorpe et al., 227 USPQ 964 (Fed. Cir. 1985).

14. Claims 1, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,573,275 to Bremer in view of US 3,685,161 to MacPherson.

Bremer teaches an alignment tool designed for mounting of measuring devices, said alignment tool having

a plurality of gauge pins (7, 7' or 9, in this case preferably 9 see column 4 lines 10-22), each having a respective distal end, said distal ends arranged to define a plane (at hub 6), wherein said plane has a known orientation, and a body (2) to which a measuring device and said plurality of gauge pins are attached,

wherein said gauge pins screw into one of threaded holes in said body, threaded inserts in said body, and threaded nuts located beyond unthreaded apertures in said body (in this case threaded holes in the body).

a plurality of retention hooks (unmarked in figure 1, see column 2 lines 59-61).

Bremer does not disclose an illumination source, the plane having a known orientation to the illumination axis, a body to which the illumination source is attached.

MacPherson discloses an illumination source that attaches to a hubcap or holder (12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tool, taught by Bremer, to include an illumination source wherein the plane is perpendicular and attached to a body, as taught by MacPherson, in order to perform camber and toe in alignments using the measuring tool.

With respect to claim 14 and said gauge pins are formed integrally with said body: It has been held that the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding (in this case fastening via the threads). In re Hotte, 177 USPQ 326, 328 (CCPA 1973).

With respect to claim 15 and "that hold the alignment tool to the adaptive cruise control sensor subsystem: This intended use has not been given any patentable weight since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

With respect to claim 1: The Applicant should note that the preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

15. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bremer and MacPherson as applied to claims 1, 12, 14 and 15 above, and further in view of US 3,337,961 to Holub.

Bremer and MacPherson together teach all that is claimed as discussed in the above rejections of claims 1, 12, 14 and 15. Furthermore, MacPherson discloses the illumination source (22) being collinear with the optical shaft (15).

Bremer and MacPherson do not teach said illumination source comprises attachment to said body by a male screw thread integral to said illumination source, and said male screw thread comprises a screw thread axis collinear with said illumination source axis.

Holub discloses that the illumination source (20) can be attached to the body at various locations using male screw threads (i.e., screw 52 in figure 3 and shaft 66 in figure 9 and column 4 lines 9-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use modify the collinear source to shaft body mounting, taught by Bremer and MacPherson, to include a male screw thread, as taught by Holub, in order to allow easier replacement or servicing of the light source should it be damaged or broken.

16. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bremer and MacPherson as applied to claims 1, 12, 14 and 15 above, and further in view of US 6,018,879 to Carder.

Bremer and MacPherson together teach all that is claimed as discussed in the above rejections of claims 1, 12, 14 and 15 except for each of said retention hooks is able to rotate.

Carder discloses that a flat plate (1) with multiple holes and rotating retention hooks (2) and wingnuts (3) are used in order to secure the plate to the wheel or hub. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tool, taught by Bremer, to include holes and rotating retention hooks and wingnuts, as taught by MacPherson, in order to accommodate a wider variety of wheel disks or hubs having different aperture locations and differing depths.

*Allowable Subject Matter*

17. Claims 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

18. Claims 20-22 and 25-28 are allowable.

19. Claims 23 and 24 would be allowable if rewritten to overcome the claim objections set forth in this Office Action and to include all of the limitations of the base claim and any intervening claims.

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20. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

### *Conclusion*

21. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related tools or components thereof.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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A handwritten signature in black ink, appearing to read 'R. Alexander Smith', with a long horizontal stroke extending to the right.

R. Alexander Smith  
Primary Examiner  
Technology Center 2800

RAS  
June 5, 2007